Storm Data and Unusual Weather Phenomena

May 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
NEW MEXICO Southeast									
Eddy County									
23 W Carlsbad	06	1503MST			0	0			Hail (0.75)
Eddy County									
5 N Whites City	06	1537MST			0	0			Hail (0.75)
Eddy County									
(Cnm)Carlsbad Arpt	06	1605MST			0	0			Thunderstorm Wind (G61)
Carlsbad airport observer reported 70 mph winds.									
Lea County									
Lovington	06	1627MST			0	0			Hail (0.75)
Eddy County									
Carlsbad	06	1659MST			0	0			Hail (0.75)
Lea County									
3 N Hobbs	06	1710MST			0	0			Hail (0.75)
Lea County									
7.2 NNW Hobbs to 6.5 NNW Hobbs	06	1809MST 1813MST	1	200	0	0	60K		Tornado (Fl)
A strong mesocyclone on the leading edge of the severe thunderstorm moving to the ESE produced a tornado on the southeast flank of the storm. This storm displayed some characteristics of an HP supercell, but with much of the forward flank missing.									
Damage ranged from F0 on the southern end (probably from an RFD) to Fl damage in the heart of the tornado path. A damage survey discovered a highly convergent pattern to the debris path of the tomado. Damage ranged from travel trailers overturned, to mobile homes pushed from foundation and roof sections missing, to a barn that was levelled and unrecognizable.									
With temperatures in the lower 90s in dew points in the upper 50s to lower 60s there was plenty of buoyant energy for thunderstorm development in southeast New Mexico. Also an old frontal boundary was in the area to help focus the activity. Storms moved to the ESE and making for good relative inflow.									
Lea County									
2 N Tatum to .5 SE Taturn	08	1800MST 1810MST	2.5	60	0	0			Tornado (F0)
A supercell moving to the southeast spawned a tomado about 2 miles north of Tatum. The tornado reportedly came straight into town, but luckily was very weak. Eyewitnesses said although there was no condensation funnel, the wall cloud above the dust tube showed significant rotation. The tornado dissipated on the southeast edge of town.									
Eddy County									
25 NW Carlsbad	22	1546MST 1600MST	2	80	0	0			Tornado (F0)
A non-supercell storm produced a small tornado in open country northwest of Carlsbad. The storm appeared relatively weak on radar.									
Lea County									
2 S Hobbs	28	1455MST 1520MST			0	0	27M		Hail (2.50)
This storm moving to the southeast became an HP Supercell as it passed over the city of Hobbs. By the time the storm arrived over the southern parts of town, hail up to tennis ball size was falling along with strong winds. Most of the trees over the southern 1/3 of town were stripped of their leaves, and numerous houses and cars suffered damage. Streets had hail stacked up over one foot deep in some areas. This storm moved to the southeast into Texas and continued to produce severe weather in Andrews, Winkler, and Ward Counties.									
Lea County									
5 NNE Eunice	28	1608MST			0	0	15K		Thunderstorm Wind
The storm that hit Hobbs continued to the southeast with other cells developing on its western flank. One of these cells had downbursting winds that knocked down 3 utility poles along State Highway 18 north of Eunice. The poles were blown from east to west.									
Lea County									
4 W Hobbs	28	1855MST 1900MST	0.3	50	0	0	20K		Tornado (F0)
Damage occurred just west of the Hobbs city limit where RFD and tornadic winds were superimposed. The damage included a 15x20 ft wooden roof taken off an old shed, parts of two other roofs damaged, an awning from a trailer destroyed, a trailer pushed 3-4 feet off its foundation, and two utility poles downed. The tornado was sighted, and a faint trail of it could be traced in the debris pattern upon inspection, but RFD winds occurred in the area as well with much of the debris blown in a divergent pattern. The storms from this day formed in a northwest flow with a Lifted Index in the -8 to -10 range. Afternoon temperatures were in the mid 80s with dew points in the upper 50s. The most notable feature of this day was the strong directional shear with low-level winds from the ESE at about 20 kt through the lowest 3000 feet and mid to upper-level winds from the northwest at over 40 kt. A weak layer of winds at about 7-10k ft MSL may have kept the environment from producing more (and stronger) supercells.									

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NEW MEXICO Southeast

The storms from this day formed in a northwest flow with a Lifted Index in the -8 to -10 range. Afternoon temperatures were in the mid 80s with dew points in the upper 50s. The most notable feature of this day was the strong directional shear with low-level winds from the ESE at about 20 kt through the lowest 3000 feet and mid to upper-level winds from the northwest at aver 40 kt. A weak layer of winds at about 7-10k ft MSL may have kept the environment from producing more (and stronger) supercells.

Lea County
Eunice 29 1748MST 0 0 Hail (1.75)

This storm developed along an E-W oriented stationary outflow boundary and moved to the southeast toward Eunice. Before arriving at Eunice the cell stopped and grew into a large multicell complex that covered much of southern Lea County, The northern part of this area branched off to the east and moved into Eunice.

Lea County
Jal 29 1842MST 0 0 Hail (0.75)

The southern end of the large complex headed toward the southeast toward Jal. The cell that passed over Jal weakened as it came into town.

Daily synopsis : This event was characterized by a northwest flow aloft and moisture farther west than typically found for this time in the year. Dew point temperatures were in the lower to mid 60s with temperatures in the lower 90s. An outflow boundary that had moved through the Lubbock, TX area early in the morning lay across the area from Central Lea County into Dawson County, TX.

TEXAS West

Pecos County
Ft Stockton 07 1645CST 0 0 Hail (0.75)

Gaines County
3 NE Higginbotham 08 1726CST 0 0 Hail (1.75)

This storm was one of a series of storms that formed along a cold front that was moving southward through the southern parts of the Texas South Plains. The storm first developed in the northwest comer of Gaines county and moved little as it intensified into a multicell cluster.

Scurry County
Snyder 08 1815CST 0 0 Hail (1.00)

Another storm that formed along the cold front and moved southward into Scurry County.

Gaines Comity
9 W Seminole 08 1824CST 0 0 1M Hail (1.75)

The Higginbotham storm began to move southward and dropped hail in the Paynes Corner area. Cotton in the area was heavily damaged.

Scurry County
6 NW Snyder 08 1845CST 0 0 Hail (1.00)

Andrews County
10 NNW Andrews 08 1926CST 0.8 100 0 0 Tornado (Fl)
1931CST

Tornado formed about 4.5 miles west of the intersection of U.S. Highway 385 and FM 1967. Reported by SKYWARN spotter. This storm entered from Gaines County and became a supercell. The storm was moving to the right of the upper flow, partly due to its dependence on the front for a low-level focus.

Gaines County
13 NE Seminole 08 2025CST 0 0 300K Hail (2.75)

A strong storm moving over the frontal boundary to the northeast in rural Gaines County.

Gaines County
13 W Seagraves 08 2040CST 0 0 6K Thunderstorm Wind

Roof blown off a structure 1-2 miles east of State Highway 214 on State Highway 83. Strong outflow winds in a slightly bowing multicell complex.

Gaines County
Seagraves 08 2044CST 0 0 2.5M 500K Hail (3.00)

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm

TEXAS, West

Baseball size hail and larger smashed the windshield of a Police cruiser and shattered windows in several homes. Power was knocked out around town as well. Autos and roofs of houses were smashed by the large hail and accounted for much of the damage total. A local insurance agent said the damage was the worst in 20 years in Seagraves.

Storms that were moving eastward into the Seagraves area had been a multicell cluster, but just before arriving at Seagraves one cell developed briefly into an HP Supercell.

Ector County 3 SW Odessa	08	2345CST 2355CST			0	0	10K	Hail (2.75)
Ector County 3 SW Odessa	08	2350CST			0	0	20K	Thunderstorm Wind

Hail up to baseball size and very heavy rains and high winds combined to cause problems in the southwestern parts of Odessa. A mobile home had its roof blown off by high winds, and windows were knocked out in several houses. Also hail was carried into low spots by running water and formed drifts that had to be scooped up by front-end loaders. Some street flooding was reported as well.

The storm came from a multicell cluster of showers moving eastward into the Permian Basin. As the cluster entered Ector County there was rapid intensification as the cluster intersected the southward moving cold front. An HP Supercell structure was noted briefly over southwestern Odessa that produced the large hail and high winds.

A very active evening with a cold front sagging into the region and southeast surface winds flowing into the mountains to help initiate deep convection. Dew point temperatures were near 60 degrees with surface temperatures in the upper 80s to lower 90s. The observed MAF sounding from this evening using the best (mean) parcel showed a lifted index of -10 (-8) and a CAPE of 3420 (2710) J/kg with no cap.

In Gaines County hail destroyed over 6000 acres of cotton.

Midland County 3 SSE Midland	14	1553CST 1610CST			0	0	30K	Hail (2.75)
Midland County 5 SSE Midland	14	1610CST 1628CST			0	0		Hail (1.75)

The triple point marking the intersection of the dry line and a cold front was located near Midland with a thunderstorm developing over the southern sections of the city. As indicated on radar two inflow areas were established--on the north and west sides of the storm. Spotters were concentrating on the west side, but apparently the dominant updraft was on the north side as a wall cloud and possible funnels were reported. The 88D reflectivity gradient was strongest on the north side as well. A mesocyclone was never confirmed with the storm, but the updraft was extremely strong with reports of tennis ball and baseball hail reported.

Gaines County 15 SE Seminole	14	1742CST			0	0		Hail (2.75)

Four severe single cell storms were initiated along an outflow boundary in southern Gaines and Dawson Counties. The storm that produced this hail was second from the east in the line in rural areas.

Dawson County 5 E Patricia	14	1751CST			0	0		Hail (2.50)

This storm was the eastern-most in the line in rural Dawson Co.

Andrews County 25 WNW Andrews	14	1923CST			0	0		Hail (1.50)

This storm was the western-most in the line near the New Mexico state line.

Martin County Stanton	14	2022CST			0	0		Hail (0.75)

The storms in Dawson and Gaines Counties weakened as they moved southward, then sent out an outflow boundary that served as the focus for new development in Martin County. The character of these storms was much different as a cluster of very small cells formed versus the well-organized single cell to the north.

Howard County Luther	14	2106CST			0	0		Hail (0.88)

The cell that produced the hail in Luther was on the northern end of the cluster with the cell over Stanton.

Scurry County Fluvanna	14	1828CST			0	0		Hail (1.75)

A storm that developed in Garza County moved southward into northwestern Scurry County where the golfball size hail fell at Fluvanna.

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
TEXAS West									
Borden County									
13 E Gail	14	1940CST			0	0			Hail (0.75)
Scurry County									
15 SW Snyder	14	1956CST			0	0			Hail (1.75)
The Fluvanna storm moved southward along the Borden/Scurry County line into the Knapp community.									
Mitchell County									
10 SW Westbrook	14	2222CST			0	0	50K	40K	Hail (1.75)
Mitchell County									
4 S Colorado City	14	2240CST			0	0	70K	50K	Hail (1.75)
Ector County									
7 S Odessa	15	1832CST			0	0			Hail (1.75)
The dry line was located from west of Lubbock extending southward to west of Sanderson. Storms fired along this area of focus in the late afternoon. Temperatures were in the lower to mid 90s with dew points in the mid to upper 50s.									
Terrell County									
Dryden	19	1630CST			0	0			Hail (0.88)
A fast moving cold front served as the focus for storms in Terrell County. The front had pushed through the Permian Basin during the morning and early afternoon and was proceeding through southern Terrell County at maximum heating. The storms were quickly swept out of the area that evening as the storm continued to press southward.									
Presidio County									
Presidio	20	1955CST			0	0			Hail (0.75)
A northeasterly upslope flow into the mountains of northern Chihuahua formed storms in the mountainous terrain. These storms were advected over the top of a frontal boundary and crossed the Rio Grande near Presidio where the hail fell. The storm appeared to continue with very strong intensity over open country while riding on the frontal boundary. The storm weakened as it approached the city of Marfa, where it skimmed the city to the south.									
Brewster County									
Marathon	20	2140CST 2330CST			0	0			Flash Flood
A moist upslope flow into the mountains of southwest Texas developed thunderstorms in the afternoon that persisted into the evening. A slow-moving cluster of storms in the Marathon area rained 2-3 inches over the town and caused flooding. Water was up to one foot deep in some locations.									
Scurry County									
10 N Snyder	23	1725CST			0	0			Hail (0.75)
The synoptic setting included a surface pre-frontal trough west of the dry line near the Texas/New Mexico border. Storms formed along the trough in the middle of the afternoon and intensified after moving east of the dryline in the late afternoon.									
Upton County									
19 NNE Mc Camey	24	1658CST			0	0			Hail (1.00)
This storm developed near the Pecos River in southern Crane County, moved to the ENE and became a multicell severe storm as it crossed Upton County. The hail fell out of a cell that had just passed maturity. This cell rapidly dissipated as the cluster continued to the east.									
Glasscock County									
12 E Garden City	24	1750CST			0	0			Hail (0.75)
Glasscock County									
12 E Garden City	24	1750CST			0	0			Thunderstorm Wind (G61)
An off-duty patrol officer reported dime size hail and 65-75 mph winds from a storm near the Sterling County line. The storm was in a multicell cluster that had developed in southwestern Glasscock County along an outflow boundary from storms to the south.									
Scurry County									
6 W Snyder	24	1759CST			0	0			Hail (0.75)
Scurry County									
Snyder	24	1811CST			0	0	10K		Thunderstorm Wind
Mitchell County									
Colorado City	24	1853CST			0	0			Thunderstorm Wind (G58)
Mitchell County									
Colorado City	24	1900CST			0	0			Hail (0.88)
Nickel-size hail fell in Colorado City while 67 mph winds were recorded at the local radio station									
Strong winds knocked down utility poles in Snyder. An outflow boundary moving eastward across the South Plains and northern Permian Basin exploded into a line of severe storms as the boundary moved into rich moisture. The line that affected Snyder developed rapidly as it moved into Scurry County from Borden County. Storms fired in the mountains of New Mexico and west Texas and moved eastward into better moisture. Dew points near the dry line (in the central Permian Basin) were too low to support severe convection, but farther east dew points were high enough to further intensify the storms to severe levels.									
Jeff Davis County									
7 SSE Ft Davis	28	1428CST			0	0			Hail (1.00)
Multicell thunderstorms that developed over the higher terrain of the Davis Mountains moved to the southeast across Ft. Davis and produced hail southeast of town.									

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TEXAS West									
Gaines County									
17 WNW Seminole	28	1610CST			0	0			Hail (1.75)
A small single cell storm that briefly produced golfball size hail.									
Andrews County									
25 WNW Andrews	28	1617CST			0	0			Hail (0.75)
Andrews County									
25 WNW Andrews	28	1617CST			0	0			Thunderstorm Wind (G52)
Winds gusting to 60 mph and hail up to 3/4 inch blasted the area along State Highway 176 in western Andrews County.									
Andrews County									
25 SW Andrews	28	1859CST 1901CST	0.3	70	0	0			Tornado (F0)
Winkler County									
21 NE Kermit	28	1901CST 1905CST	1	70	0	0	l0K		Tornado (F0)
After pummelling Hobbs, NM with large hail, this storm went through a reorganization as it passed through much of Gaines and Andrews Counties, then once again attained its HP Supercell status in southwestern Andrews County. The storm produced a weak tornado in extreme southern Andrews County that crossed into Winkler County. Shortly after entering Winkler County the tornado crossed Highway 115 where a utility pole was downed. Branches from a mesquite bush were thrown in many directions by the tornado.									
Ward County									
2 E Monahans	28	1921CST			0	0			Hail (1.75)
Although this storm was beginning to fall apart it was still able to produce golfball size hail near Monahans. The storms from this day formed in a northwest flow with a Lifted Index in the -8 to -10 range. Afternoon temperatures were in the mid 80s with dew points in the upper 50s. The most notable feature of this day was the strong directional shear with low-level winds from the ESE at about 20 kt through the lowest 3000 feet and mid to upper-level winds from the northwest at over 40 kt. A weak layer of winds at about 7-10k ft MSL may have kept the environment from producing more (and stronger) supercells.									
Andrews County									
10 W Andrews	28	1620CST 1650CST			0	0			Hail (0.88)
A slowly moving multicell storm cluster caused hail for a 30 minute period west of Andrews, then proceeded south into northwest Ector County.									
Andrews County									
10 S Andrews	28	1810CST			0	0			Hail (1.75)
Ector County									
Goldsmith	28	1835CST 1840CST			0	0			Hail (1.75)
This multicell cluster was causing hail at the same time of the large HP Supercell farther west. This storm was eventually absorbed by the HP storm in eastern Ward County.									
Jeff Davis County									
16 NNW Ft Davis	29	1330CST 1337CST			0	0			Hail (1.25)
Thunderstorms developed in the higher terrain of the Davis Mountains and became multicell severe, dropping hail at the McDonald Observatory.									
Pecos County									
7 NW Ft Stockton	29	1555CST			0	0			Hail (0.88)
The storm cluster that produced hail in Jeff Davis County moved slowly to the east and dropped more hail near Fort Stockton. The storms dissipated east of Fort Stockton.									
Jeff Davis County									
3 SSW Ft Davis	29	1600CST 1630CST			0	0	3K		Hail (2.75)
A hail storm hit the Village Farms Tomato Greenhouse south of Fort Davis. The huge greenhouses total over 83,000 glass panes, but luckily only 500 panes were broken by the hail. Much of the hail was around golfball size, but there was some baseball size. This storm developed after the first cluster had moved away from the mountains. Its structure was only impressive for a short time as it moved over this area.									
Reeves County									
10 W Toyah	29	1650CST			0	0			Hail (0.75)
Multicell storms that formed in Delaware Mountains in Culberson County had a severe cell west of Toyah as they moved eastward into richer moisture.									

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TEXAS West									
Martin County									
Three Leaugues	29	1845CST			0	0			Hail (1.75)
A storm developed in Southwestern Dawson County along a stationary outflow boundary, then moved to the southeast into northern Martin County where the hail was reported. This storm became a supercell with strong rotation on its northwest flank. The storm turned 45 degrees to the right of the mean storm motion as calculated by the WSR-88D tracking algorithm and slowed to almost half the speed of the other storms.									
Andrews County									
Frankel City	29	1933CST			0	0			Hail (0.75)
Andrews County									
Andrews	29	1947CST 2000CST			0	0			Hail (1.00)
The storm that hit Eunice NM continued to move east across Frankel City and then into Andrews. The storm appeared to be a short line of only about 20 miles in length, but had a distinct leading-edge reflectivity gradient. The storm was also accelerating through Andrews County moving at 25-30 mph by the time it reached Andrews.									
Borden County									
14 W Gail	29	2022CST			0	0			Hail (1.00)
Quarter size hail was reported on the Dawson/Borden County line. This storm formed in southwestern Lynn County, moved southeast into Dawson County and became severe as it straddled the Dawson/Borden County line. The storm turned right for a short time and travelled almost straight south along the county line. Then after only a few miles of this motion began to move to the southeast again and weakened.									
Dawson County									
15 E Lamesa	29	2022CST			0	0			Hail (1.00)
Daily synopsis : This event was characterized by a northwest flow aloft and moisture farther west than typically found for this time m the year. In the Davis Mountains dew point temperatures were in the mi d to upper 50s. In the Permian Basin dew points were in the lower to mid 60s with temperatures in the lower 90s. An outflow boundary that had moved through the Lubbock area early the previous morning lay across the area from Central Lea County into Dawson County.									